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* * * * * Welcome to STN International * * * * *

NEWS	1		Web Page URLs for STN Seminar Schedule - N. America
NEWS	2	Jan 25	BLAST(R) searching in REGISTRY available in STN on the Web
NEWS	3	Jan 29	FSTA has been reloaded and moves to weekly updates
NEWS	4	Feb 01	DKILIT now produced by FIZ Karlsruhe and has a new update frequency
NEWS	5	Feb 19	Access via Tymnet and SprintNet Eliminated Effective 3/31/02
NEWS	6	Mar 08	Gene Names now available in BIOSIS
NEWS	7	Mar 22	TOXLIT no longer available
NEWS	8	Mar 22	TRCTHERMO no longer available
NEWS	9	Mar 28	US Provisional Priorities searched with P in CA/CAPLUS and USPATFULL
NEWS	10	Mar 28	LIPINSKI/CALC added for property searching in REGISTRY
NEWS	11	Apr 02	PAPERCHEM no longer available on STN. Use PAPERCHEM2 instead.
NEWS	12	Apr 08	"Ask CAS" for self-help around the clock
NEWS	13	Apr 09	BEILSTEIN: Reload and Implementation of a New Subject Area
NEWS	14	Apr 09	ZDB will be removed from STN
NEWS	15	Apr 19	US Patent Applications available in IFICDB, IFIPAT, and IFIUIDB
NEWS	16	Apr 22	Records from IP.com available in CAPLUS, HCAPLUS, and ZCAPLUS
NEWS	17	Apr 22	BIOSIS Gene Names now available in TOXCENTER
NEWS	18	Apr 22	Federal Research in Progress (FEDRIP) now available
NEWS	19	Jun 03	New e-mail delivery for search results now available
NEWS	20	Jun 10	MEDLINE Reload
NEWS	21	Jun 10	PCTFULL has been reloaded
NEWS EXPRESS			February 1 CURRENT WINDOWS VERSION IS V6.0d, CURRENT MACINTOSH VERSION IS V6.0a(ENG) AND V6.0Ja(JP), AND CURRENT DISCOVER FILE IS DATED 05 FEBRUARY 2002
NEWS HOURS			STN Operating Hours Plus Help Desk Availability
NEWS INTER			General Internet Information
NEWS LOGIN			Welcome Banner and News Items
NEWS PHONE			Direct Dial and Telecommunication Network Access to STN
NEWS WWW			CAS World Wide Web Site (general information)

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* * * * * STN Columbus * * * * *

FILE 'HOME' ENTERED AT 16:26:21 ON 16 JUN 2002

=> file agricola biosis

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

0.21

0.21

FILE 'AGRICOLA' ENTERED AT 16:26:31 ON 16 JUN 2002

FILE 'BIOSIS' ENTERED AT 16:26:31 ON 16 JUN 2002

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=> s glume color (5w) pink

L1 0 GLUME COLOR (5W) PINK

=> s cob color (5w) red

L2 0 COB COLOR (5W) RED

=> s silk color (5w) pinke

L3 0 SILK COLOR (5W) PINKE

=>

<-----User Break----->

=> s silk color (5w) pink

L4 0 SILK COLOR (5W) PINK

=> s x1139y and (maize or corn)

L5 0 X1139Y AND (MAIZE OR CORN)

=> s yield potential and (maize or corn)

L6 307 YIELD POTENTIAL AND (MAIZE OR CORN)

=> s l6 and gray leaf spot

L7 4 L6 AND GRAY LEAF SPOT

=> dup rem l7

PROCESSING COMPLETED FOR L7

L8 2 DUP REM L7 (2 DUPLICATES REMOVED)

=> d 1-2 ti

L8 ANSWER 1 OF 2 AGRICOLA

DUPLICATE 1

TI Management practices to reduce **gray leaf spot**
of **maize**.

L8 ANSWER 2 OF 2 AGRICOLA

DUPLICATE 2

TI Disease reaction changes from tandem selection for multiple disease
resistance in two **maize** synthetics.

=> d 1-2 ab

L8 ANSWER 1 OF 2 AGRICOLA

DUPLICATE 1

AB The beneficial effects of stubble tillage on soil and water conservation
are widely recognized, but surface stubble also increases the potential
for crop damage by fungal pathogens that overwinter in the previous
season's debris. In recent years, **gray leaf**
spot (GLS) has become a major yield-limiting disease, resulting in
grain yield losses as high as 60% in high **yield**
potential maize (Zea mays L.) production areas. A study
was launched to investigate strategies that could be adopted to facilitate
the continuation of conservation tillage practices without exposing
maize to unnecessarily high risk from GLS. The aim of the study
was to investigate the interactive effects of four tillage practices
leaving varying amounts of surface residues and fungicide treatments for

the control of stubble-associated pathogens. In the hot, dry season, unfavorable for GLS, the onset of disease was 23 d earlier in no-till with higher disease than conventional tillage. The benefits of conserved soil moisture under stubble tillage with concomitant higher grain yields than conventional tillage offset the detrimental effects of higher disease. Results from the study indicate that tillage practices are unlikely to have a major impact in managing GLS; since the mean yield of conventional tillage with minimal stubble (3% residue), during four seasons, was between 28 and 209 kg ha⁻¹ lower than tillage treatments leaving 82 and 26% stubble on the soil surface, respectively. During the four seasons of the study, grain yield responses to fungicide treatment ranged from 477 kg ha⁻¹ in unfavorable seasons to 3830 kg ha⁻¹ in seasons favorable for GLS. The judicious application of fungicides will reduce the risk of financial loss from GLS and will allow the continuation of the desirable stubble tillage practice in sustainable farming systems.

L8 ANSWER 2 OF 2 AGRICOLA DUPLICATE 2
 AB Future **maize** (*Zea mays* L.) productivity increases require breeding materials with high **yield potential** and multiple disease resistance. As part of an integrated program to develop breeding populations with high grain **yield potential** and multiple disease resistance, two **maize** synthetics were reciprocally recurrently selected for yield and mass selected for multiple disease resistance. The objective of this study was to determine selection response of two **maize** synthetics to six cycles of tandem selection for multiple leaf diseases (MLD and multiple stalk rots (MSR)). Plants were inoculated each cycle and evaluated for MLD including their causal agents; northern **corn** leaf blight, (NCLB) [*Exserohilum turcicum* (Pass.) Leonard and Suggs, Races 0 and 1], southern **corn** leaf blight (SCLB) [*Bipolaris maydis* (Nisik) Shoem.], northern **corn** leaf spot (NCLS) [*Bipolaris zeicola* (Stout) Shoem. Races 1, 2, and 3], anthracnose leaf blight [*Colletotrichum graminicola* (CES) G.W. Wils.], and eyespot (*Kabatiella zeae* Narita and Hirzatsuka). Following anthesis, plants were inoculated and evaluated for resistance to MSR including their causal agents; diplodia stalk rot (DSR) [*Stenocarpella maydis* (BERK) Sutton = syn. *Diplodia maydis* (BERK)], anthracnose stalk rot (ASR) [*Colletotrichum graminicola*], gibberella stalk rot (GSR) [*Gibberella zeae* (Shw.) Petch.], and fusarium stalk rot [*Fusarium moniliforme*, Shield]. In 1993 and 1994, selection cycles 0, 2, 4, and 6 of synthetics RSSSC, RBS10, and their cycle crosses were evaluated. Selection response to MLD, NCLB, SCLB, NCLS, **gray leaf spot** (GLS; *Cercospora zeae maydis* Tehon and Daniels), MSR, DSR, GSR, and ASR were measured in separate experiments. Decreases in leaf blight severity from C0 to C6 in RSSSC was 29% for MLD, 23% for NCLB, 33% for SCLB, 28% for NCLS, and 21% for GLS. Decreases for RBS10 were 34% for MLD, 33% for NCLB, 37% for SCLB, 49% for NCLS, and 16% for GLS. Cycle crosses were usually intermediate in values for leaf blight reductions. For stalk rots, the reduction in percentage internode area discolored from C0 to C6 for RSSSC was 44% for MSR, 42% for DSR, 39% for GSR, and 18% for ASR. Reductions for RBS10 were 63% for MSR, 67% for DSR, 64% for GSR, and 63% for ASR. Selection for multiple disease resistance along with a reciprocal recurrent program for yield resulted in significant improvement in resistance to multiple and individual diseases in RSSSC, RBS10, and their crosses.

=> d 1-2 so

L8 ANSWER 1 OF 2 AGRICOLA DUPLICATE 1
 SO Crop science, July/Aug 1997. Vol. 37, No. 4. p. 1257-1262
 Publisher: Madison, Wis. : Crop Science Society of America, 1961-
 CODEN: CRPSAY; ISSN: 0011-183X

L8 ANSWER 2 OF 2 AGRICOLA DUPLICATE 2

SO Crop science, Jan/Feb 1997. Vol. 37, No. 1. p. 66-69
Publisher: Madison, Wis. : Crop Science Society of America, 1961-
CODEN: CRPSAY; ISSN: 0011-183X

=> s 16 and root strenght
L9 0 L6 AND ROOT STRENGHT

=> s 16 and root strength
L10 0 L6 AND ROOT STRENGTH

=> s 16 and stay green
L11 2 L6 AND STAY GREEN

=> d 1-2 ti

L11 ANSWER 1 OF 2 AGRICOLA
TI Physiological and genetic changes of irrigated wheat in the post-Green Revolution period and approaches for meeting projected global demand.

L11 ANSWER 2 OF 2 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
TI Physiological and genetic changes of irrigated wheat in the post-green revolution period and approaches for meeting projected global demand.

=> d 1-2 ab

L11 ANSWER 1 OF 2 AGRICOLA
AB Global demand for wheat (*Triticum aestivum* L.) is growing faster than gains in genetic **yield potential** are being realized, currently a little under 1% per year in most regions. Improvement in yield of semidwarf wheat has generally been associated with increased harvest index (HI) and grain per square meter. For CIMMYT (International Maize and Wheat Improvement Center) varieties released between 1962 and 1988, yield increase was also associated with higher flag-leaf photosynthetic rate and related traits, but not higher biomass. Nevertheless, significantly higher biomass has been reported in more recent CIMMYT lines. Improved HI is associated with higher N use efficiency (yield per unit of available N) and improved yield of semidwarf lines is expressed at high and low levels of N input. Where interplant competition for light and soil factors are manipulated, yield improvement is associated with adaptation to high plant density. Studies have confirmed that the juvenile spike growth phase is critical in determining both grain number and kernel weight (sink) potential. Improving assimilate availability during this stage, perhaps by lengthening its relative duration, may be one way to improve **yield potential**. Traits that could potentially be exploited for improving assimilate (source) capacity include early vigor, **stay-green**, leaf-angle, and remobilization of stem reserves. Use of alien chromatin is a successful approach for introducing yield-enhancing genes into elite genetic backgrounds. Examples include the 1B/1R chromosome translocation from rye (*Secale cereale* L.), and more recently the LR19 segment from tall wheatgrass [*Agropyron elongatum* (Host) P. Beauv.] Improving the efficiency of early-generation selection may be another strategy for raising **yield potential** by increasing the probability of identifying physiologically superior lines by techniques such as infrared thermometry and spectral reflectance.

L11 ANSWER 2 OF 2 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
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=> d -12 so

L11 ANSWER 1 OF 2 AGRICOLA

SO Crop science, Nov/Dec 1999. Vol. 39, No. 6. p. 1611-1621
 Publisher: Madison, Wis. : Crop Science Society of America, 1961-
 CODEN: CRPSAY; ISSN: 0011-183X

L11 ANSWER 2 OF 2 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

SO Crop Science, (Nov. Dec., 1999) Vol. 39, No. 6, pp. 1611-1621.
 ISSN: 0011-183X.

=> s relative maturity (5w) 114

L12 0 RELATIVE MATURITY (5W) 114

=> s 16 and central corn belt

L13 0 L6 AND CENTRAL CORN BELT

=> s 16 and northeast

L14 3 L6 AND NORTHEAST

=> d 1-3 ti

L14 ANSWER 1 OF 3 AGRICOLA

TI Comparison of economic injury levels for western **corn** rootworm
 (Coleoptera: Chrysomelidae) infesting silage and grain **corn**.

L14 ANSWER 2 OF 3 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

TI Soil water availability for the **corn** crop in Sao Paulo State,
 Brazil, based on sowing dates and cultivars.

L14 ANSWER 3 OF 3 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

TI Comparison of economic injury levels for western **corn** rootworm
 (Coleoptera: Chrysomelidae) infesting silage and grain **corn**.

=> d 1-3 ab

L14 ANSWER 1 OF 3 AGRICOLA

AB The effect of known densities of western **corn** rootworms, *Diabrotica virgifera virgifera* LeConte, on yield and monetary losses was compared for **corn** harvested as silage and as grain. In 1991 and 1992, plots were infested artificially with western **corn** rootworm eggs at densities ranging from 0 to 1,500 viable eggs per 30.5 cm of row. Level of rootworm feeding did not affect silage quality, as measured by percentage crude protein, acid detergent fiber, neutral detergent fiber, and nonstructural carbohydrates. Western **corn** rootworm caused greater yield reductions and dollar losses in **corn** grown for silage than for grain. Economic injury levels (EILs) were calculated for various combinations of crop use, **yield potential**, and crop value typical of **corn** production in the **Northeast**. Assuming an insecticide cost of \$39.50 per ha, EILs for silage ranged from 71-127 viable eggs per 30.5 cm of row, corresponding to root ratings ranging from 2.5-2.9. In contrast, EILs were much higher for **corn** harvested for grain, ranging from 242-537 viable eggs per 30.5 cm of row, corresponding to root ratings ranging from 3.5-4.6.

L14 ANSWER 2 OF 3 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

AB Several **corn** crop regions of the State of Sao Paulo, Brazil, were studied concerning soil water content during the growing season, related to the cycles of super earlier, earlier and late cultivars in several simulated sowing dates. It was considered the soil water content parameter (ARM) as a result of a ten day water balance model. It was calculated these probabilities of the ARM greater than 50 mm, during the year for all regions studied. These probabilities were related with the crop growth stages for the 3 cycles considered, specially during the flowering and grain filling. The best sowing dates for the three cultivars, were characterized by the high probabilities of attendance of water demand by rainfall, during critical growth stages, giving different potential yield by region. The North, Northwest, East and **Northeast** regions presented in the highest yield potentialities, for the normal sowing dates (October to December). For the late sowing dates ("safrinha"), the region of "Vale do Paranapanema" and Southwest region presented higher **yield potential** than the other regions.

L14 ANSWER 3 OF 3 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

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=> d 1-3 so

L14 ANSWER 1 OF 3 AGRICOLA

SO Journal of economic entomology, Aug 1994. Vol. 87, No. 4. p. 1086-1090

Publisher: Lanham, Md. : Entomological Society of America, 1908-
CODEN: JEENAI; ISSN: 0022-0493

L14 ANSWER 2 OF 3 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
SO Bragantia, (1998) Vol. 57, No. 1, pp. 127-133.
ISSN: 0006-8705.

L14 ANSWER 3 OF 3 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
SO Journal of Economic Entomology, (1994) Vol. 87, No. 4, pp. 1086-1090.
ISSN: 0022-0493.

WEST Search History

DATE: Sunday, June 16, 2002

Set Name Query**side by side****Hit Count Set Name****result set**

DB=USPT; PLUR=YES; OP=ADJ

L15	L12 and (resistance adj5 gray leaf spot)	7	L15
L14	L12 and excellent yield potential	0	L14
L13	L12 and good stay green	0	L13
L12	L11 and (corn or maize)	8	L12
L11	relative maturity adj5 114	8	L11
L10	x1139y and (maize or corn)	0	L10
L9	L8 and l6 and l4 and l2	0	L9
L8	L7 and (maize or corn)	220	L8
L7	cob color adj5 red	220	L7
L6	L5 and (maize or corn)	73	L6
L5	silk color adj5 pink	73	L5
L4	L3 and (maize or corn)	1	L4
L3	glume color adj5 pink	1	L3
L2	L1 and (maize or corn)	81	L2
L1	anther color adj5 pink	83	L1

END OF SEARCH HISTORY